

dedicated database. Early (<30 days) and follow-up results were evaluated.

**Results:** The site of aneurysm was splenic artery in 16 patients and common hepatic artery in 3 patients, while the remaining two patients had gastroduodenal and celiac aneurysms, respectively. All the lesions were asymptomatic and the mean diameter was 23.9 mm. Interventions consisted in coil embolization in 14 cases; in four patients a covered stent was placed, while the remaining three patients had a multilayer stent. Technical success was 91%. There were no perioperative deaths; one patient with splenic artery aneurysm had coils migration with symptomatic splenic infarction and underwent successful redo embolization. Median duration of follow-up was 20 months. During follow-up one aneurysm-unrelated death occurred. Neither thrombosis of the treated artery nor reintervention were recorded. Mean aneurysmal diameter at the latest follow-up was 20.2 mm ( $P = .001$  in comparison with preoperative values; 95% CI, 1.7-5.5). Complete exclusion of the aneurysm occurred in all but one patient, who had a limited increasing in the diameter of its splenic aneurysmal sac after coil embolization. Another patient developed a more distal aneurysm of the splenic artery after 24 months. Freedom from aneurysm-related complications at 2 years was 70% (SE 0.10).

**Conclusions:** In our experience, endovascular treatment of visceral artery aneurysm is feasible with low perioperative morbidity. Follow-up results are satisfactory; however the risk of developing aneurysm-related complications warrants the need for prolonged surveillance.

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## PS90.

### Clinical Outcomes After Repair of Renal Artery Aneurysms

Zdenek Novak, Marc A. Passman, Thomas C. Matthews, Mark A. Patterson, William D. Jordan. Vascular Surgery, University of Alabama at Birmingham, Birmingham, Ala

**Objectives:** To compare renal function outcomes of open repair, endovascular therapy and surveillance for renal artery aneurysm (RAA).

**Methods:** Medical records of 40 patients with RAA encountered between 2000 and 2012 were reviewed and divided into 3 groups: endovascular therapy (ET, n = 9), open repair (OR; n = 20), and surveillance (SV, n = 11). Creatinine level GFR estimates were based on MDRD equation. Nuclear studies were used to assess renal flow/lateralization. Hypertension (HTN) severity was assessed based upon the number of medications used. SPSS package (IBM) was used for statistical analysis.

**Results:** Demographics of all groups were similar. The average size [mm] of RAA at the time of treatment was  $19 \pm 6$  for ET and  $22 \pm 7.4$  for OR. The average HTN meds number before and after treatment for ET was  $2.3 \pm 1.5 \rightarrow 3 \pm 1.8$  and for OR:  $1.7 \pm 1.1 \rightarrow 1.7 \pm 0.9$ . HTN

control after intervention worsened in 33% of ET and 15% of OR patients and improved in 11.1% of ET and 20% of OR patients. The renal flow was more frequently lateralized (affected side flow <45%) in the ET after the procedure (20% (4/5) vs 50% (4/8) in OR). The average GFR [mL/min/1.73m<sup>2</sup>] changed from 71.3 to 55.2 for ET and from 82 to 81.4 for OR. No patient progressed to dialysis during 1-10 years of surveillance. We also observed significant ( $P < .01$ ) difference in hospital stay (ET:  $2.37 \pm 2.32$  vs OR:  $8.94 \pm 4.96$  days). In the SV group the average RAA size at presentation was  $18 \pm 6.6$  mm with no significant growth over 2 to 66 months of surveillance. The average GFR was 75.0 at presentation and 79.7 at the latest visit. HTN control was similar with  $2.4 \pm 1.9$  meds at the beginning and  $2.1 \pm 1.2$  meds at the latest visit. None of the SV patients crossed over to treatment groups. RAA rupture was not observed.

**Conclusions:** Open repair of RAA tends to provides better preservation of renal function than endovascular treatment. While endovascular repair has less early morbidity and shorter hospital stays, the reduced renal preservation may have a negative impact on HTN control.

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## C6f: Poster Session-Practice Management; Other

### PS92.

#### Do Preoperative Statins Improve Outcomes After Abdominal Aortic Aneurysm Repair?

Edgar L. Galiñanes<sup>1</sup>, Viktor Y. Dombrowskiy<sup>2</sup>, Shaun Reynolds<sup>1</sup>, Todd R. Vogel<sup>1</sup>. <sup>1</sup>Division of Vascular Surgery, University of Missouri Hospital & Clinics, Columbia, Mo; <sup>2</sup>UMDNJ, New Brunswick, NJ

**Objectives:** This study evaluated the utilization of preoperative statins and their impact on perioperative outcomes in patients undergoing open (OAR) or endovascular (EVAR) aortic repair.

**Methods:** Patients  $\geq 50$  years of age with non-ruptured AAA repair were identified in MedPAR files 2007-2008 utilizing ICD-9-CM codes. Preoperative statins use was identified using National Drug Codes in Part D.  $\chi^2$  test, multivariable logistic regression, Kaplan-Meier and Cox regression modeling was performed.

**Results:** 19,323 patients were identified undergoing AAA repair (14,602 EVAR and 4721 OAR). 9,913 (50.3%) used statins before surgery. Bivariate analysis demonstrated lower rates of hospital, 30-, 90-day and 1-year mortality in patients with statins compared to those

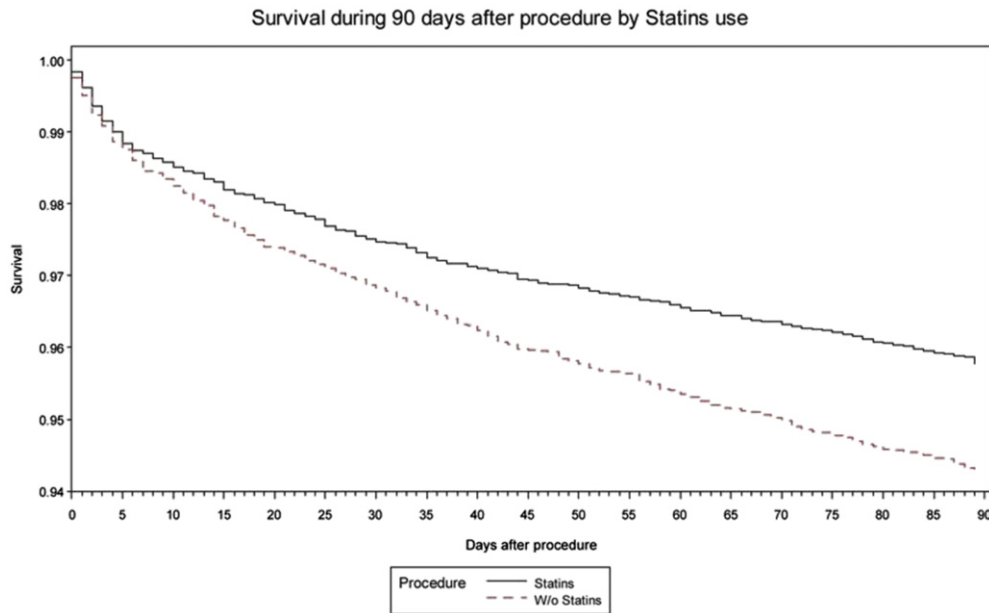


Fig.

without after EVAR (1.0% vs 1.45%,  $P = .01$ ; 1.51% vs 2.3%,  $P = .0004$ ; 3.05% vs 4.66%,  $P < .0001$ ; 7.91% vs 11.56%,  $P < .0001$ , respectively). Multivariable logistic regression adjusting for age, gender, race, comorbidities and procedure demonstrated preoperative statins use was associated with a mortality reduction at 90-days postoperatively (OR, .80; 95% CI, 0.70-0.91;  $P = .0014$ ) and 1-year postoperatively (OR, .76; 95% CI, 0.69-0.84;  $P = .0001$ ).

**Conclusions:** Only half of patients undergoing AAA repair had preoperative statins. After adjustment, statins were not significantly associated with a benefit until 90 days after surgery suggesting greater long term mortality benefit. Further prospective studies are needed to assess the benefit of statins in the perioperative period.

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#### PS94.

##### Using a Multimedia Presentation to Improve Patient Understanding and Satisfaction With Informed Consent for Minimally Invasive Vascular Procedures: A Pilot Study

Nicolas Bowers<sup>1</sup>, Naomi Eisenberg<sup>2</sup>, Jeff Jaskolka<sup>3</sup>, Graham Roche-Nagle<sup>2</sup>. <sup>1</sup>Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada; <sup>2</sup>Department of Vascular Surgery, University Health Network, Toronto, Ontario, Canada; <sup>3</sup>Department of Interventional Radiology, University Health Network, Toronto, Ontario, Canada

**Objectives:** Vascular interventions are becoming increasingly complex; as procedures become more complex, patient understanding of their treatments can become more difficult. This study aims to evaluate the utility of multimedia presentations (MMP) on an Apple® iPad computer for patient understanding of vascular interventions.

**Methods:** Patients undergoing endovascular aneurysm repair (EVAR), peripheral angioplasty, Hickman catheter and peripherally inserted central catheter (PICC) line insertion were randomized into a control group receiving traditional verbal consent, or a MMP group that were shown a 2 minute simplified video of their procedure in addition to the traditional verbal consent. After obtaining consent all patients completed a questionnaire assessing comprehension of the procedure, and satisfaction with the consent process.

**Results:** Eighty patients were recruited for this study, twenty for each procedure. Patients reported the utility of the MMP as an average of 4.8 on a 5 point Likert scale, with 5 being 'very helpful' in understanding the procedure. The MMP was shown to improve patient comprehension of certain procedures, with angioplasty patients in the MMP group answering more questions correctly during assessment of comprehension ( $P = .002$ ).

**Conclusions:** This study has shown that patients find MMP during the consent process to be very helpful in understanding vascular interventions, and that patients receiving certain vascular interventions have improved comprehension of their procedures when shown a MMP during the consent process. Given the rapid rate of innovation in vascular surgery, the use of MMP to help patients understand new and complex procedures would be beneficial in the future care of patients undergoing vascular interventions.